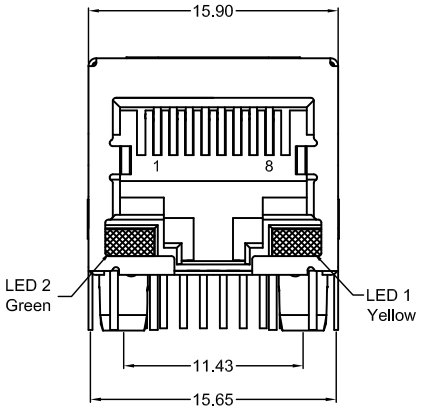
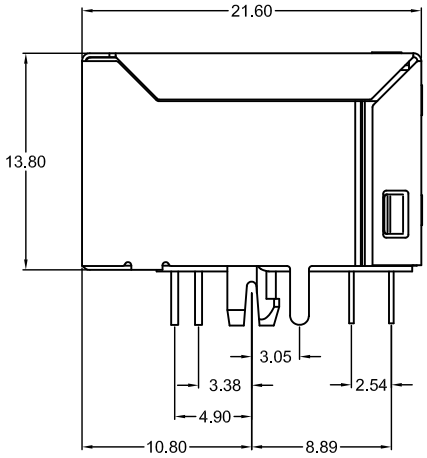
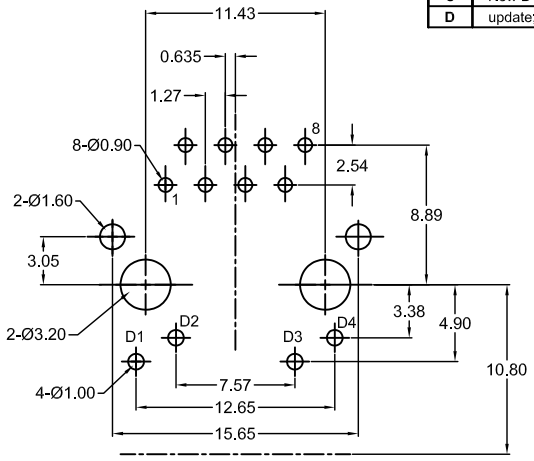
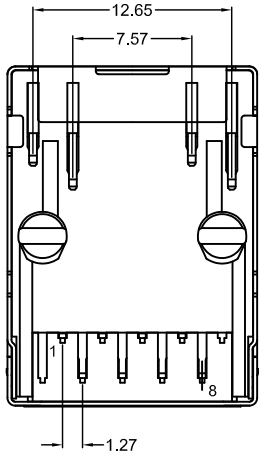
REV.	DESCRIPTION	DATE	DRAWN
A	Release	18.06.2009	Ryan
B	PN -M0L0- --> -M0LE-	01.07.2009	Hogi
C	New DWG. No.	01.02.2012	Ronny
D	update; add LED polarity	13.02.2015	Ronny







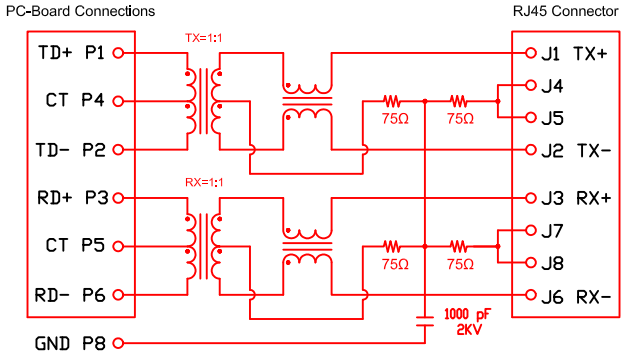


Recommended PCB Hole Layout
Top View
(PCB TOLERANCE ±0.05)

LED Schematic
single color LED
D1 + D2 - D3 - D4 +
Green Yellow

PART NUMBER	GOLD PLATING CONTACT AREA
MJS-188-M0LE-95/74CS	3µ"
MJS-188-M0LE-96/74CS	6µ"
MJS-188-M0LE-97/74CS	15µ"
MJS-188-M0LE-98/74CS	30µ"
MJS-188-M0LE-9H/74CS	50µ"

Schematic: LE Type
(Standard for Ethernet)



RoHS compliant

SPECIFICATION
1. MATERIAL:
   Housing - PBT UL 94V-0 (black)
   Contact - 0.35mm PhBz; Au/Sn plated
   Shield - Brass; Ni plated
2. OPERATING LIFE: 750 Cycles min.
3. TEMPARATURE RANGE:
   Storrage - -40°C to +85°C
   Operating - 0°C to 70°C
4. Cavity comply with FCC Rules and Regulations Part 68, Subpart F

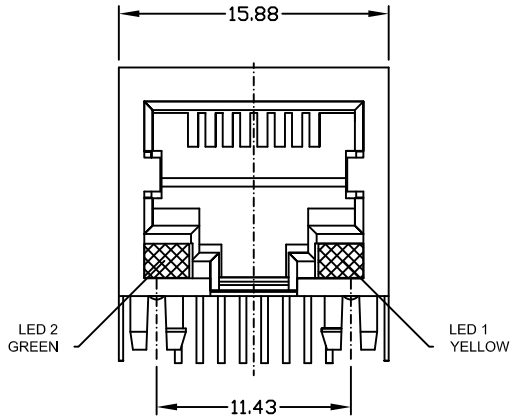
ELECTRICAL CHARACTERISTICS
Test Notes: (25°C ±5°C)
1. TR: (100KHz 0.1V):
   Pins: (P1-P2):(J1-J2)=1:1±3%
   Pins: (P3-P6):(J3-J6)=1:1±3%
2. LX: (100KHz 100mV 8mA DC Bias)
   Pins: (P1-P2):(P3-P6)=350µH min.
3. DCR:
   Pins: (J1-J2):(J3-J6)=1.2Ω max.
4. HIPOT:
   Pins: (P1,P2)to(J1,J2)=1500V AC for 60 Sec.
   Pins: (P3,P6)to(J3,J6)=1500V AC for 60 Sec.
5. INSERTION LOSS:
   -1.0dB max. at 1MHz to 100MHz
6. RETURN LOSS:
   -18dB min. at 1MHz to 30MHz (load 100Ω)
   -16dB min. at 30MHz to 60MHz (load 100Ω)
   -12dB min. at 60MHz to 80MHz (load 100Ω)
7. CROSS TALK:
   -30dB min. at 1MHz to 100MHz
8. COMMON TO COMMON MODE REJECTION:
   -30dB min. at 1MHz to 100MHz

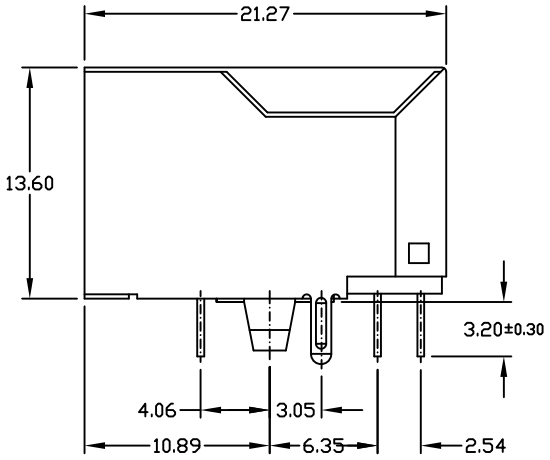
E-tec Interconnect

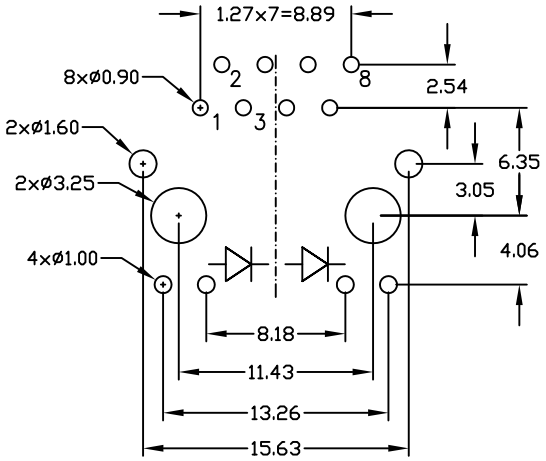
UNIT mm	GENERAL TOLERANCE		DRAWN Ryan	DATE 18.06.2009	DWG. NO. 1342505	SHEET 1/1
SCALE Free	X.° ± 3°	.X ° ±	CHECK Ronny	DATE 13.02.2015		REV. D
	X. ±	.X0 ± 0.38	APPROVE Hogi	DATE 13.02.2015	Series NO. MJS-188-M0LE-9x/74CX	
	XX. ±	.XX ± 0.25				
	XXX. ±	.XXX ±				

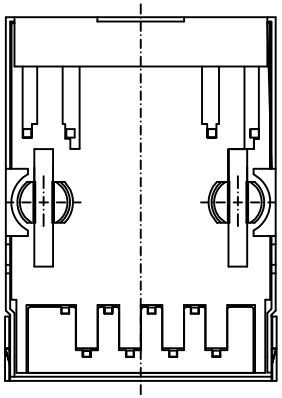
RJ 45 PCB JACK <8P8C>
SIDE ENTRY-LONG PROFILE TYPE with LED
FULLY SHIELDED
"LE" Type 10/100 Base TX Filtered (Standard for Ethernet)

REV.	LOCAS.	DESCRIPTION	DATE	DRAWN
A		Release	21.10.2008	RH
B		LED Nbr. & PN /71CS –> /74CS	01.07.2009	Ronny
C		New DWG. No.	01.02.2012	Ronny







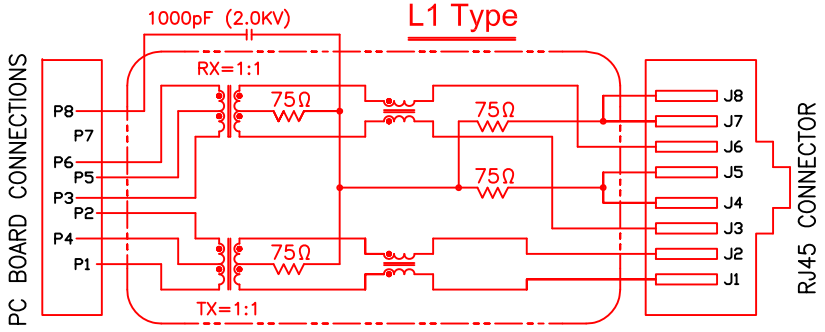


SPECIFICATIONS

Current rating:	1.5A
Insulation resistance:	500MΩ min./500V DC
Dielectric withstanding:	1000V rms. 60Hz/Minute
Contact resistance:	40mΩ max./20mV DC
Operating temperature:	-40°C ~ +105°C
Insulator material:	High temp. thermoplastic UL94V-0 color: Black
Contact material:	Phosphor Bronze
Finish:	Gold plated on contact area, Tin on solder area
Shielded:	Brass, Nickel plated

RoHS 2002/95/EC compliant

PART NUMBER	GOLD PLATING CONTACT AREA
MJS-188-M1L1-96/74CS	6µ"
MJS-188-M1L1-97/74CS	15µ"
MJS-188-M1L1-98/74CS	30µ"
MJS-188-M1L1-9H/74CS	50µ"



ELECTRICAL

Transmitter filter

Type: Balance low pass 100Ω impedance
Insertion loss: 1~100MHz -1.15dB max.
Return loss: 1~30MHz -18dB min. Load 100Ω
30~60MHz -15dB min. Load 100Ω
60~80MHz -11dB min. Load 100Ω

Receiver filter

Type: Balance low pass 100Ω impedance
Insertion loss: 1~100MHz -1.0dB max.
Return loss: 1~30MHz -20dB min. Load 100Ω
30~60MHz -14dB min. Load 100Ω
60~80MHz -12dB min. Load 100Ω

Common mode Rejection

@ 1~100MHz -25dB min.

Cross Talk

@ 1~100MHz -28dB min.

Inductance

@ 100KHz, 0.1V, 8mA DC BIAS
Input (1-3), Input (4-6): 350µH min.

Hi-Pot TEST

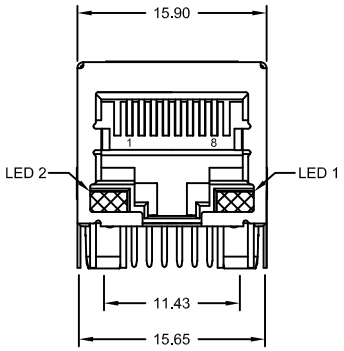
Input (1-3) to Output (1-2): 1500V AC, 60sec.
Input (4-6) to Output (3-6): 1500V AC, 60sec.

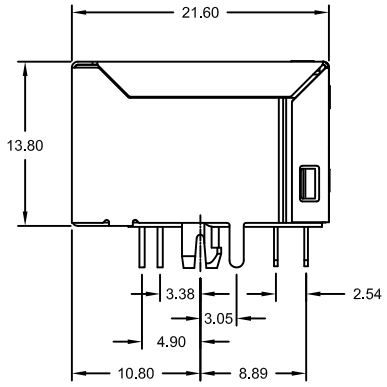
E-tec Interconnect

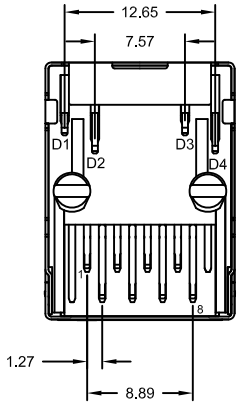
UNIT mm	GENERAL TOLERANCE		DRAWN RONNY	DATE 21.10.2008	DWG. NO. 1342509
SCALE Free	X.° ±	X. ± 0.50	CHECK HOGI	DATE 01.02.2012	SHEET 1/1
	.X° ±	.X ± 0.38	APPROVE HOGI	DATE 01.02.2012	REV. C
	.XX° ±	.XX ± 0.25	SERIES NO. MJS-188-X1Lx-xx/7xCX		
	ANG ± 3°	.XXX ± 0.10			

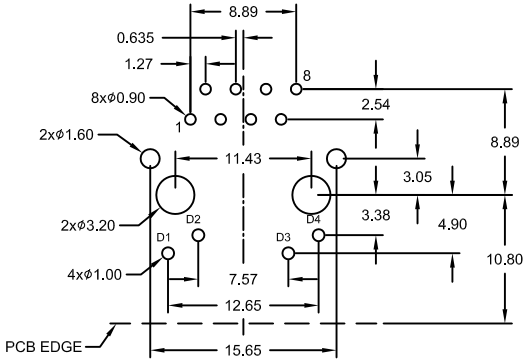
RJ45 PCB JACK <8P8C>
SIDE ENTRY-LONG PROFILE TYPE
FULLY SHIELDED with lower LED
L1 Type 10/100 Base TX Filtered

REV.	DESCRIPTION	DATE	DRAWN
A	NEW	04.07.2013	Ryan

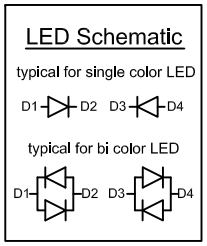




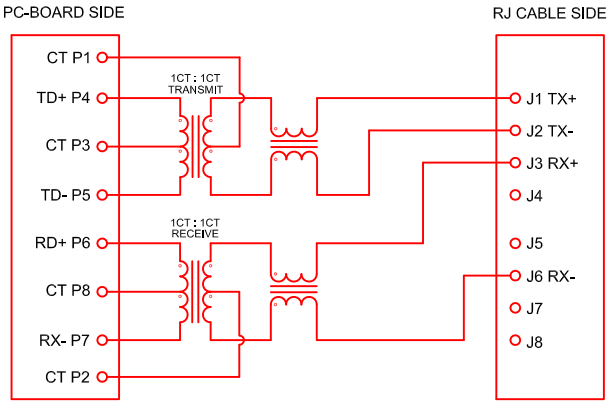




Recommended PCB Hole Layout
(Top View)



Schematic: "9" Type



Replace "x" with
LED Color Options

PART NUMBER	GOLD PLATING CONTACT AREA
MJS-188-K0L9-95/7xCS	3µ"
MJS-188-K0L9-96/7xCS	6µ"
MJS-188-K0L9-97/7xCS	15µ"
MJS-188-K0L9-98/7xCS	30µ"
MJS-188-K0L9-9H/7xCS	50µ"

	LED Color Options	
	LED 2	LED 1
1	YELLOW	GREEN
2	NO LED	GREEN
3	GREEN	NO LED
4	GREEN	YELLOW
5	GREEN	GREEN
6	YELLOW	YELLOW
7	ORANGE/GREEN	ORANGE/GREEN
8	YELLOW/GREEN	YELLOW/GREEN
9	RED	NO LED
A	GREEN/YELLOW	GREEN/YELLOW
B	RED/GREEN	RED/GREEN
C	RED/GREEN	GREEN/YELLOW
D	GREEN	GREEN/YELLOW
E	YELLOW	GREEN/YELLOW

RoHS 2002/95/EC compliant

SPECIFICATION

MATERIALS

Insulator: PBT UL 94V-0
Contact: Phosphor Bronze t=0.35mm
plated with Gold, and Tin in solder area
Shield: Brass, Nickel plated

Operating Temperature: 0°C to ~ +70°C

ELECTRICAL CHARACTERISTICS

Test Notes: (25°C ±5°C)
1. TR: (100KHz 0.1V):
   Pins: (P4-P5):(J1-J2)=1:1±3%
   Pins: (P6-P7):(J3-J6)=1:1±3%
2. LX: (100KHz 100mV 8mA DC Bias)
   Pins: (P4-P5),(P6-P7)=350µH min.
3. DCR:
   Pins: (J1-J2),(J3-J6)=1.2Ω max.
4. HIPOT:
   Pins: (P4,P5)to(J1,J2)=1500V AC for 60 Sec.
   or 2250V DC 60 Sec.
   Pins: (P6,P7)to(J3,J6)=1500V AC for 60 Sec.
   or 2250V DC 60 Sec.
5. INSERTION LOSS:
   -1.0dB max. at 1MHz to 100MHz
6. RETURN LOSS:
   -18dB min. at 1MHz to 30MHz, load 100Ω
   -16dB min. at 30MHz to 60MHz, load 100Ω
   -12dB min. at 60MHz to 80MHz, load 100Ω
7. CROSS TALK:
   -30dB min. at 1MHz to 100MHz
8. COMMON TO COMMON MODE REJECTION:
   -30dB min. at 1MHz to 100MHz

E-tec Interconnect

UNIT	mm
SCALE	Free

GENERAL TOLERANCE	
X.° ±	X. ±
.X° ±	.X ± 0.25
.XX° ±	.XX ± 0.15
.XXX° ±	.XXX ± 0.075

DRAWN	Ryan	04.07.2013
CHECK	Andres	04.07.2013
APPROVE	Hogi	04.07.2013

DWG. NO. 1342526
SHEET 1/1
REV. A
SERIES NO. MJS-188-K0L9-9x/7xCS

RJ45 PCB JACK <8P/8C> Tab down
side entry, long profile Type with LED
fully shielded
"9" Type 10/100 Mbps, 4 core TX Filtered